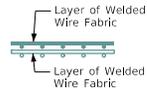


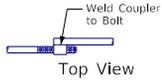
Typical Tie Layout

Note:
Holes shall be cast or drilled 1'-4" from centerline of joints as shown above, unless forms are set up for 1'-4" spacing from outside of joint.

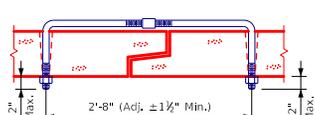


Fabric Layer Detail

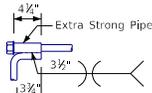
Note:
When more than one layer of welded wire fabric is used to obtain the required reinforcement areas, the wires of the welded wire fabric shall be placed as shown.



Top View



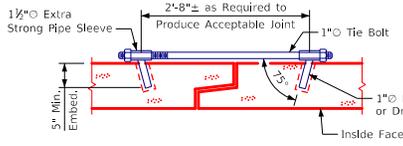
Adjustable Tie



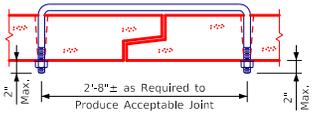
Detail A



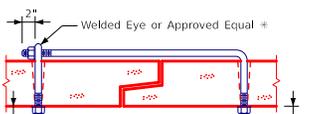
Optional Canopy Tie



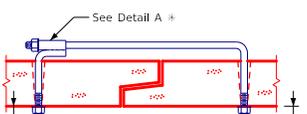
Concealed Double Welded Pipe Tie



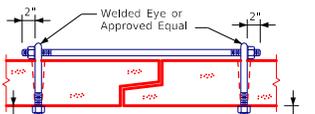
U Bolt Tie (6)



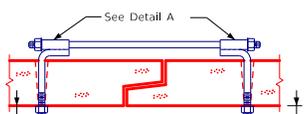
Eye Bolt Tie



Welded Pipe Tie



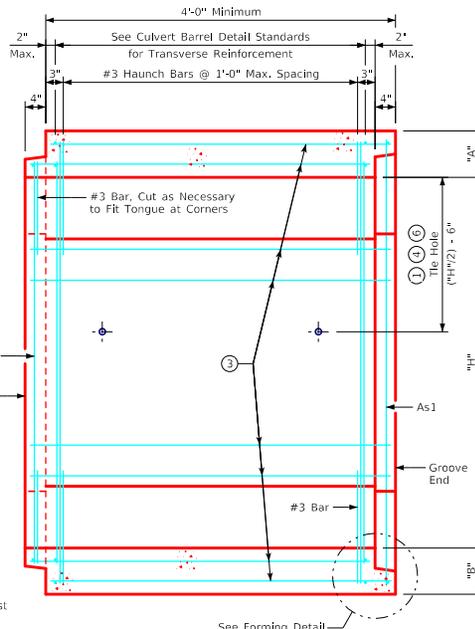
Double Eye Bolt Tie



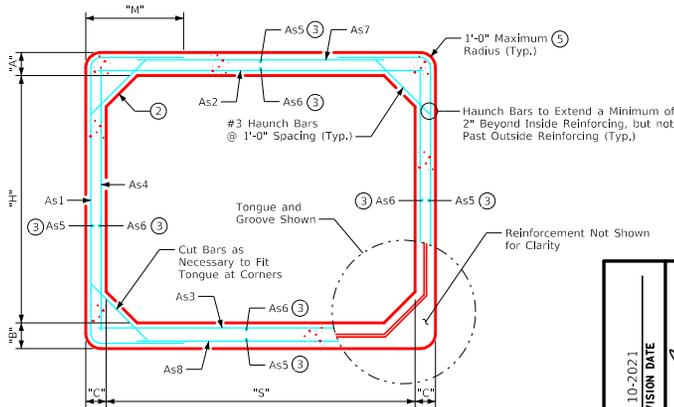
Double Welded Pipe Tie

Approved Concrete Box Ties

* The connections shall be placed at the downstream end when the connections are placed inside of structure.



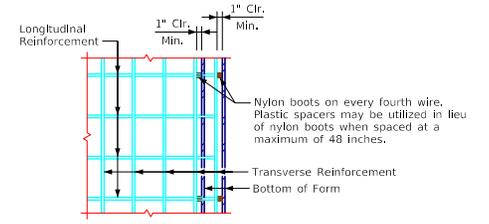
Longitudinal Barrel Section
(Reinforcement Bar Option Shown)



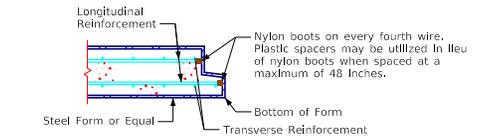
Transverse Barrel Section
(Reinforcement Bar Option Shown)

Notes:

- ① Culvert ties are to be 1" rods. See this sheet for connection details.
- ② Haunch sizes are to be 12" vertical, 12" horizontal on all box sizes.
- ③ Longitudinal reinforcement denoted as As5 & As6 must be placed in slab, floor, and walls and must be 0.06 IN./FT, MIN.
- ④ Refer to applicable end section detail sheet for barrel to end section connection tie hole locations.
- ⑤ Optional squared corners with 3/4" to 2" chamfer.
- ⑥ U bolt ties are required for cattle paths with nuts on fill side.

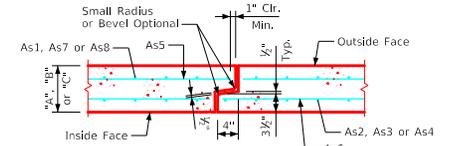


Plan



Section

Forming Detail



Tongue and Groove Joint Detail

10-2021 LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER		
	Standard Design Single Precast Reinforced Concrete Box Culverts December, 2020	
	Typical Culvert Barrel Details	PRCB G2-20